Metadata for Theodore Roosevelt National Park, Field Plots Data Base for Vegetation Mapping

Identification_Information:
Citation:
Citation_Information:
Originator:
Remote Sensing and GIS Group, Technical Service Center, US Bureau of Reclamation, Mail Code D-8260, POB 25007, Denver CO 80225
Publication_Date: 2000
Title: Theodore Roosevelt National Park Field Data
Geospatial_Data_Presentation_Form: database
Series_Information:
Series_Name: USGS-NPS Vegetation Mapping Program
Issue_Identification: Theodore Roosevelt National Park
Publication_Information:
Publication_Place: Denver, CO
Publisher: USGS-BRD
Other_Citation_Details: Created under contract to the USGS-BRD-CBI
Online_Linkage: http://biology.usgs.gov/npsveg/thro/fielddata.html
Description:
Abstract:
This metadata is for the field data associated with the vegetation land cover and land use geospatial database for Theodore Roosevelt National Park and surrounding areas. The project is authorized as part of the USGS/NPS Vegetation Mapping Program (http://biology.usgs.gov/npsveg). The program is being administered by the Biological Resources Division (BRD) of the United States Geological Survey (USGS). The USGS/BRD is responsible for overall management and oversight of all ongoing mapping efforts. This mapping effort was performed by the US Bureau of Reclamation's (USBR) Remote Sensing and GIS Group, Technical Service Center, Denver, CO. The vegetation mapping program is part of a larger Inventory and Monitoring (I&M) program started by the National Park Service (NPS) Their website is :http://www1.nature.nps.gov/im/
Purpose:
The purposes of the mapping effort are varied and include the following: Provides support for NPS Resources Management; Promotes vegetation-related research for both NPS and USGS/BRD; Provides support for NPS Planning and Compliance; Adds to the information base for NPS Interpretation; and Assists in NPS Operations. The NPS I&M goals are, among others, to map the vegetation of all national parks and monuments and provide a baseline inventory of vegetation.
Time_Period_of_Content:
Time_Period_Information:

Range_of_Dates/Times:
Beginning_Date: 199707
Ending_Date: 199708
Currentness_Reference: Time frame given in report as "Field surveys began in the second week of July 1997.
Status:
Progress: Complete
Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
Description_of_Geographic_Extent: Theodore Roosevelt NP and surrounding environs.
Bounding_Coordinates:
West_Bounding_Coordinate: -103.75
East_Bounding_Coordinate: -103.125
North_Bounding_Coordinate: 47.75
South_Bounding_Coordinate: 46.75
Keywords:
Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: Land cover
Theme_Keyword: Land use
Theme_Keyword: Vegetation
Theme_Keyword: National Park Service
Place:
Place_Keyword_Thesaurus: None
Place_Keyword: North Dakota
Place_Keyword: Theodore Roosevelt National Park
Place_Keyword: Little Missouri River
Place_Keyword: Little Missouri National Grasslands
Place_Keyword: Elkhorn Ranch
Place_Keyword: Medora
Taxonomy:
Keywords/Taxon:
Taxonomic_Keyword_Thesaurus: None
Taxonomic_Keywords: vegetation
Taxonomic_Keywords: plants
Taxonomic_Keywords: National Vegetation Classification System
Taxonomic_System:
Classification_System/Authority:
Classification_System_Citation:
Citation_Information:
Originator: Anderson, et al
Publication_Date: 1976
Title: A Land Use and Land Cover Classification System for Use with Remote Sensor Data
Geospatial_Data_Presentation_Form: document
Series_Information:
Series_Name: Geological Survey Professional Paper
Issue_Identification: No. 964
Publication_Information:
Publication_Place: Washington, DC
Publisher: US GPO
Other_Citation_Details: This project used the Level II Land Use Classes
Online_Linkage: http://biology.usgs.gov/npsveg/classification/index.html
Taxonomic_Procedures: Sequence of field test data plots, observation plots, and photo-signature observations.
General_Taxonomic_Coverage: Refer to complete listing of mapped plant alliances/associations under Supplemental Information above.
Taxonomic_Classification:
Taxon_Rank_Name: Kingdom

Taxon_Rank_Value: Plantae
Access_Constraints: None
Use_Constraints:
Acknowledgment of the USGS/BRD, National Park Service, and the USBR/RSGIS Group would be appreciated in products derived from these data. Any person using the information presented here should fully understand the data collection and compilation procedures, as described in the metadata, before beginning analysis. The burden for determining fitness for use lies entirely with the user
Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Organization: U.S. Geological Survey, Center for Biological Informatics
Contact_Address:
Address_Type: mailing and physical address
Address:
U.S. Geological Survey, Center for Biological Informatics, MS 302, Room 8000, Building 810, Denver Federal Center
City: Denver
State_or_Province: Colorado
Postal_Code: 80225
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: 303-202-4229
Contact_Facsimile_Telephone: 303-202-4219 (org)
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Browse_Graphic:
Browse_Graphic_File_Name: http://biology.usgs.gov/npsveg/thro/images/throplot.jpg
Browse_Graphic_File_Description: 251 Kbyte
Browse_Graphic_File_Type: JPEG
Data_Set_Credit: Dan Cogan, Doug Crawford, Jean Pennell, Trudy Meyer, Jim Von Loh of Theodore Roosevelt NP, NPS
Native_Data_Set_Environment: Microsoft Access mdb

Data_Quality_Information:
Logical_Consistency_Report: Unknown
Completeness_Report:
Investigators chose representative stands of plant communities to collect 172 data plots. Detailed sampling plots were subjectively placed in vegetation that was representative of an area, relatively homogeneous, and covered more than 1/2 hectare (the minimum mapping unit). Thus, ecotones and small patches of vegetation were avoided. Forest and woodland communities were sampled with 20 x 20-meter plots while shrubland and herbaceous communities were sampled with 10 x 10-meter plots. Collected data included habitat characteristics (e.g. slope, aspect, elevation, and soil characteristics), vegetation composition and structure, and other site features such as wildlife or human disturbance. At least three plots were sampled for each plant community found in the study area, as long as three stands were available. In order to collect grazed land data and data for rare associations outside the Park (such as ponderosa pine forest) investigators selected a few sample sites outside and near Park boundaries.

All sampled data were entered into TNC's 'PLOTS' database.
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report:
The UTM coordinates
and elevation of all plots were logged using a hand-held Precision
Lightweight Global Positioning System (GPS) Receiver (PLGR) unit.
Lineage:
Methodology:
Methodology_Type: Field
Methodology_Identifier:
Methodology_Keyword_Thesaurus: None
Methodology_Keyword: Field Sample
Methodology_Keyword: GPS
Methodology_Keyword: Field Plot
Methodology_Keyword: releve methodology
Methodology_Keyword: Daubenmire classification
Methodology_Description:
Field surveys began in the second week of July 1997. Data collection
included both plot and observation points allowing investigators
to record typical vegetation types and also to record variation within
plant communities across larger areas.

Observation points were used to become quickly familiar with plant association
characteristics, plant association ranges of variation, and to field check the
preliminary classification. Sampling included basic information on habitat and
vegetation structure and composition. Specific information recorded included
UTM X-Y coordinates (using NAD27 datum), dominant species cover data, and
brief environmental characteristics. Data from 122 observation points were collected
during the field survey. Points were recorded mainly within gradsects, and were
chosen to sample the range of habitat and vegetation variability observed on aerial
photography, on preliminary maps, and in the field. Limitations of observation point
data included no measurement or delineation of the sampling area and cover was only
estimated for the common species in each stratum.

Investigators chose representative stands of plant
communities to collect 172 data plots. Detailed sampling plots
were subjectively placed in vegetation that was representative
of an area, relatively homogeneous, and covered more than
1/2 hectare (the minimum mapping unit). Thus, ecotones
and small patches of vegetation were avoided. Forest and
woodland communities were sampled with 20 x 20-meter plots
while shrubland and herbaceous communities were sampled with
10 x 10-meter plots. Collected data included habitat characteristics
(e.g. slope, aspect, elevation, and soil characteristics), vegetation
composition and structure, and other site features such as wildlife
or human disturbance. At least three plots were sampled for each
plant community found in the study area, as long as three stands
were available. In order to collect grazed land data and data for
rare associations outside the Park (such as ponderosa pine forest)
investigators selected a few sample sites outside and near Park boundaries.

To characterize vegetation structure, all species found within a plot were noted
and foliar cover for each species by strata was estimated using a modified
Daubenmire (1959) classification. Since cover was estimated independently
for both species and strata, total coverage for some of the plots was greater

than 100%. In forests and woodlands, dbh (diameter at breast height) was measured for all trees greater than 10 cm dbh. Various environmental data were also collected for each plot to characterize the abiotic conditions under which the sampled vegetation occurred. The UTM coordinates and elevation of all plots where logged using a hand-held Precision Light-weight Global Positioning System (GPS) Receiver (PLGR) unit. Thirty-five (35) mm slides were taken for each plot and representatives are included in this report. At least three plots were sampled for each plant community found in the study area, as long as three stands were available. For a few rare plant communities (e.g., 'Greasewood Shrubland'), only one or two plots were sampled. All sampled data were entered into TNC's 'PLOTS' database.

Methodology_Citation:
Citation_Information:
Originator: D. Mueller-Dombois and H. Ellenberg
Publication_Date: 1974
Title: Aims and Methods of Vegetation Ecology
Geospatial_Data_Presentation_Form: Book
Publication_Information:
Publication_Place: New York
Publisher: Wiley

Methodology_Citation:
Citation_Information:
Originator: R. Daubenmire
Publication_Date: 1959
Title: A canopy-coverage method of vegetational analysis
Geospatial_Data_Presentation_Form: Journal Article
Series_Information:
Series_Name: Northwest Science
Issue_Identification: 23: 69-82

Process_Step:
Process_Description:
In addition, the procedure for classifying vegetation followed guidelines set forth int eh Vegetation Classification Standard (FGDC 1996) which was developed from the Standardized National Vegetation Classification System (NVCS) (TNC 1994). This national system contains seven classification levels with the two finest (lowest) being the alliance and association (community) levels. Associations are separated from alliances through the use of floristic composition and are named by the most dominant and/or indicator species. If two or more dominant species occur in the same stratum a dash symbol is used. If the species occur in different strata then a slash is used. Parentheses are used in instances when the diagnostic species are not consistently present in teh vegetation unit.

Classification for the Theodore Roosevelt National Park study area involved placing all observation poitn data and plot data into groups based onvegetation structure and composition. From here, extensive floristic knowledge of the field team allowed most of the sampled community types to be qualitatively evaluated and subjectively assigned to an existing NVCS class. In a few instances, new NVCS classes were discerned and prepared from evaluations of the floristic data. Additional analyses were performed using the plot data combined with other similar data to provide a better regional perspective on vegetation types. These were quantitatively analyzed using ordination techniques (Detrended Correspondence Analysis "DCA" and Non-Metric Multidimensional Scales "NMS"), a clustering algorithm, Unweighted Pair-Group Method Using Arithmetic Means (UPGMA), and Two-Way Indicator Species

Analysis (TWINSPAN). Since, in a number of cases, there were only a few sample plots per vegetation type, the above analyses could not be solely relied upon for classification. However, the results of the numerical analyses were compared to the subjective classification in order to detect any discrepancies between the two.

A dichotomous vegetation key for Theodore Roosesvelt National Park was prepared following the 1997 field season. The key was tested during the Accuracy Assessment process in 1998 and reviewed by TNC, resulting in some modifications. A final illustrated, dichotomous key leading to association descriptions was chosen to privide guidance to researchers in the field.

Process_Date: 1997 or 1998 following the 1997 field season.

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Point

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Planar:
Grid_Coordinate_System:
Grid_Coordinate_System_Name: Universal Transverse Mercator
Universal_Transverse_Mercator:
UTM_Zone_Number: 13
Transverse_Mercator:
Longitude_of_Central_Meridian: -105
Latitude_of_Projection_Origin: 0
False_Easting: 0
False_Northing: 0
Scale_Factor_at_Central_Meridian: .9996
Planar_Coordinate_Information:
Planar_Coordinate_Encoding_Method: coordinate pair
Coordinate_Representation:
Abscissa_Resolution: 1
Ordinate_Resolution: 1
Planar_Distance_Units: meters
Geodetic_Model:
Horizontal_Datum_Name: North American Datum of 1983
Ellipsoid_Name: Geodedic Reference System 80
Semi-major_Axis: 6378137
Denominator_of_Flattening_Ratio: 298.257

Entity_and_Attribute_Information:
Overview_Description:
Entity_and_Attribute_Overview:
DEFINITIONS of and/or INSTRUCTIONS for populating Data fields

This section lists all of the data fields that you will encounter in the Plots Database System. Definitions for most of the data fields are provided and/or instructions to: a) locate the data field; and b) populate the data field.

1. AA Obs Code

This field is a unique identifier for an AA Observation record. It is generated by the Plots Database when you create a new record. The AA Obs Code is assembled from two parts: the Location Code and a sequential counter field (AA Code Counter) that is increased automatically each time a Plot is entered for that Location.

Examples:

SHEN.1 The first AA Observation record entered for Shenandoah NP
TUZI.8 The eighth AA Observation record entered for Tuzigoot NM

The AA Code Counter can be reset to any number you would like when the system creates the AA Obs Code for a new AA Observation record. As you select the Location for your new AA Observation record, the system will suggest a new AA Obs Code based on the current setting of the counter. You can accept this AA Obs Code, or you can change the counter at this point. Changing the counter setting will cause the counter to start numbering from the new setting. This may be desirable if you would like to coordinate data entry with another installation, and want to avoid using duplicate AA Obs Codes. See the How to Get Started section: Entering Data from field forms: Creating a new plot record for more detailed instructions. Once you finalize the AA Obs Code, you can not change it directly. If you need to change the AA Obs Code of your record, refer to the Troubleshooting/Helpful Hints section: Editing Problems.

The AA Obs Code is viewed as read-only data in the Identifiers section of the AA Observation form.

2. Air Photo Number

The identifying number or code of the aerial photo on which the plot appears.

The Air Photo Number can be edited in the Identifiers 1 section of the Plots form, and in the Identifiers section of the AA Observation form.

3. Animal Use Evidence

Comment on any evidence of use of the plot/polygon by non-domestic animals (i.e, tracks, scat, gopher or prairie dog mounds, etc.). Notes on domestic animals should be made in the field Disturbance Comments.

Animal Use Evidence can be edited in the Misc Comments section of the Plots form.

4. Aspect

Enter slope aspect; use a compass (be sure to correct for the magnetic declination).

Aspect can be edited in the Environment 1 section of the Plots and AA Observation forms. Use the pull-down list to select an appropriate value.

Values:

FLAT
VARIABLE
N 338-22Â°
NE 23-67Â°
E 68-112Â°
SE 113-157Â°
S 158-202Â°
SW 203-247Â°
W 248-292Â°
NW 293-337Â°

5. Classified Community Name

Once the data are analyzed and the community has been classified, enter the name of the community from the National Vegetation Classification System.

The Classified Community Name can be edited in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form.

6. Common Name

The common name for an individual species record within the NRCS PLANTS Database.

The Common Name can be edited by clicking the 'PLANTS Database Maintenance' button from the "Main Menu" window. Click on one of the 'Edit/View Data' buttons. Edit according to the instructions in the Functions section: Editing Data: Undo/Edit functions.

NOTE: if you change the contents of the PLANTS Database in any way you can not represent it to others as the NRCS PLANTS Database. Please read the PLANTS copyright notice (click the 'Important Copyright Information' button in the "Main Menu" window).

7. Corrected Lat

Enter the post-processing correction for the latitude.

Corrected Lat can be edited in the Environment 1 section of the Plots and AA Observation forms after you click the 'Lat/Long' button.

8. Corrected Long

Enter the post-processing correction for the longitude.

Corrected Long can be edited in the Environment 1 section of the Plots and AA Observation forms after you click the 'Lat/Long' button.

9. Corrected X

X coordinate of Universal Transerverse Mercator projection after post-processing correction. To be filled in at the office, not in the field.

The Corrected X can be edited in the Environment 1 section of the Plots and AA Observation forms after you click the 'UTM' button.

10. Corrected Y

Y coordinate of Universal Transerverse Mercator projection after post-processing correction. To be filled in at the office, not in the field.

The Corrected X can be edited in the Environment 1 section of the Plots and AA Observation forms after you click the 'UTM' button.

11. Cowardin System

Cowardin System can be edited in the Environment 1 section of the Plots and AA Observation forms. Use the pull-down list to enter the appropriate term: If the system is a wetland, enter the name of the USFWS system which best describes it's hydrology and landform. Indicate "upland" if the system is not a wetland.

Values:

UPLAND - Not a wetland according to the Cowardin System.

ESTUARINE - Deepwater tidal habitats and adjacent tidal wetlands that are usually semienclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity is above 0.5 parts per thousand, and may be periodically increased above that of the open ocean by evaporation. Along some low energy coastlines there is appreciable dilution of sea water. Offshore areas with typical estuarine plants and animals, such as red mangroves and eastern oysters are also included in the Estuarine System. The presence of halophytic plants may be used to differentiate Estuarine from other freshwater systems if there is insufficient data on salinity.

PALUSTRINE - Nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active waveformed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2m at low water; and (salinity due to oceanderived salts less than 0.5 parts per thousand.

RIVERINE - Includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetland dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean derived salts in excess of 0.5 parts per thousand. A channel is "an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water".

LACUSTRINE - Includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% areal coverage; and (3) total area exceeds 8 ha (20 acres). Similar wetland and deepwater habitats totaling less than 8 ha are also included in the Lacustrine System if an active waveformed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 2 m (6.6 feet) at low water. Lacustrine waters may be tidal or nontidal, but oceanderived salinity is always less than 0.5 parts per thousand.

12. DBH

For forests and woodlands, list for each tree species the DBH of all trees above 10 cm diameter. Separate the measurements with a comma and note whether in cm or inches.

The DBH field can be edited by clicking the 'View/Edit Species List' button in the Identifiers 1 section of the Plots form, then scrolling right by clicking on the right arrow button in the lower right section of one of the subwindows.

The DBH field is not found in the AA-Species form.

13. Diagnostic

This is to be checked if the species is known to be diagnostic of the vegetation type.

The Diagnostic field can be edited by clicking the 'View/Edit Species List' button in the Identifiers section of AA Observation or the Identifiers 1 section of the Plots form, then

scrolling right by clicking on the right arrow button in the lower right section of one of the subwindows.

Click on the data square labeled Diagnostic to produce an 'x' if it is diagnostic. Click the data square again to remove the 'x'.

14. Disturbance Comments

Comment on any evidence of natural or anthropogenic disturbance and specify the source.

Disturbance Comments can be edited through the Misc Comments section of the Plots and AA Observation forms.

15. Elevation

Elevation of the plot. Using the associated check-offs/data squares, specify whether feet or meters (this will depend on the units used on the topographic map/DEM's being used).

Elevation can be edited through the Environment 1 section of the Plots and AA Observation forms. Click on a data square to produce an 'x' to indicate that your measurement is in 'm' or 'ft'.

16. Environmental Comments

Enter any additional noteworthy comments on the environmental setting.

Environmental Comments can be edited in the Environment 2 section of the Plots and AA Observation forms.

17. Family

The family name for an individual species record within the NRCS PLANTS Database.

The plant Family can be edited by clicking the 'PLANTS Database Maintenance' button from the "Main Menu" window. Click on one of the 'Edit/View Data' buttons. Edit according to the instructions in the Functions section: Editing Data: Undo/Edit functions.

NOTE: if you change the contents of the PLANTS Database in any way you can not represent it to others as the NRCS PLANTS Database. Please read the PLANTS copyright notice (click the 'Important Copyright Information' button in the "Main Menu" window).

18. Field Lat

If latitude and longitude were used to measure geographic position, enter the latitude value read from the GPS at the time of sampling.

To edit Field Lat click on the 'Lat/Long' button of the Environment 1 section of the Plots or AA Observation forms.

19. Field Long

If latitude and longitude were used to measure geographic position, enter the longitude value read from the GPS at the time of sampling.

To edit Field Long click on the 'Lat/Long' button of the Environment 1 section of the Plots or AA Observation forms.

20. Field X

X coordinate of Universal Transerverse Mercator projection read from the GPS at the time of sampling.

To edit Field X click the 'UTM' button of the Environment 1 section of the Plots or AA Observation forms.

21. Field Y

Y coordinate of Universal Transerverse Mercator projection read from the GPS at the time of sampling.

To edit Field Y click the 'UTM' button of the Environment 1 section of the Plots or AA Observation forms.

22. Frame Number

If photos have been taken at the plot, enter the film frame number to help identify the photos after film processing.

Edit Frame Number in the Identifiers 2 section of the Plots form. This data field is not found in the AA Observation form.

23. GPS File

Enter the filename assigned to the plot when collecting GPS information. It should be in the form XXMMDDHH (unique plot identifier*, month, day, hour, i.e. 23071313 - plot 23 collected on July 13 at 1pm).

* Depending on your own data and situation, the counter portion of the Plot Code might serve as a convenient identifier.

Edit GPS File by clicking the 'UTM' or 'Lat/Long' buttons in the Environment 1 section of the Plots and AA Observation forms.

24. GPS Techniques

Indicate the projection and GPS datum, plus any noteworthy comments regarding equipment and/or techniques used to process the GPS data.

Edit GPS Techniques by clicking the 'UTM' or 'Lat/Long' buttons in the Environment 1 section of the Plots and AA Observation forms.

25. Hydrologic Regime

Assess the hydrologic regime of the plot using the descriptions that follow of hydrological modifiers used to identify wetland units at the formation level (adapted from Cowardin et al. 1979). Edit Hydrologic Regime in the Environment 1 section of the Plots and AA Observation forms. Select the appropriate term from the pull-down list.

SEMIPERMANENTLY FLOODED - Surface water persists throughout growing season in

most years except during periods of drought. Land surface is normally saturated when water level drops below soil surface. Includes Cowardin's Intermittently Exposed and Semipermanently Flooded modifiers.

SEASONALLY FLOODED - Surface water is present for extended periods during the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is very variable, extending from saturated to a water table well below the ground surface. Includes Cowardin's Seasonal, Seasonal-Saturated, and Seasonal-Well Drained modifiers.

SATURATED - Surface water is seldom present, but substrate is saturated to surface for extended periods during the growing season. Equivalent to Cowardin's Saturated modifier.

TEMPORARILY FLOODED - Surface water present for brief periods during growing season, but water table usually lies well below soil surface. Often characterizes flood-plain wetlands. Equivalent to Cowardin's Temporary modifier.

INTERMITTENTLY FLOODED - Substrate is usually exposed, but surface water can be present for variable periods without detectable seasonal periodicity. Inundation is not predictible to a given season and is dependnet upon highly localized rain storms. This modifer was developed for use in the arid West for water regimes of Playa lakes, intermittent streams, and dry washes but can be used in other parts of the U.S. where appropriate. This modifier can be applied to both wetland and non-wetland situations. Equivalent to Cowardin's Intermittently Flooded modifier.

PERMANENTLY FLOODED - Water covers the land surface at all times of the year in all years. Equivalent to Cowardin's "permanently flooded".

PERMANENTLY FLOODED TIDAL - Salt water covers the land surface at all times of the year in all years. This modifier applies only to permanently flooded areas irregularly flooded by fresh tidal water. Equivalent to Cowardin's "permamently flooded/tidal".

TIDALLY FLOODED - flooded by the alternate rise and fall of the surface of oceans, seas, and the bays, rivers, etc. connected to them, caused by the attraction of the moon and sun [or by the back-up of water caused by unfavorable winds.

UNKNOWN -- The water regime of the area is not known. The unit is simply described as '(wetland).'

26. Hydrology Evidence

Describe the hydrological factors that caused you to assign the type to the hydrologic regime that you chose. What were the clues that caused you to make the call you did?

Hydrology Evidence can be edited in the Environment 1 section of the Plots and AA Observation forms.

27. Jurisdiction

The two-character State or Province code, or the ISO Nation code if appropriate. To edit the Jurisdiction for a particular location, enter the Locations form by clicking on the 'Supporting Data' button from the "Main Menu" window. You can use the pull-down list to help populate this field, although you can also type in values that are not found in the list.

28. Landform

Enter a descriptive term for the landform characteristics of the area. Landform is edited in the Environment 1 section of the Plots and AA Observation forms.

29. Landscape Comments

Describe the landscape context of the community. What are the adjacent communities? Are there any other important landscape features influencing this community?

Landscape Comments can be edited in the Environment 2 section of the Plots and AA Observation forms.

30. Leaf Phenology

Leaf Phenology can be edited in the Lifeforms section of the Plots and AA Observation forms. Using the pull-down list, select the value which best describes the leaf phenology of the dominant stratum.

Definitions:

EVERGREEN - Greater than 75% of the total woody cover is never without green foliage.

DECIDUOUS - Greater than 75% of the total woody cover sheds its foliage simultaneously in connection with the unfavorable season.

COLD DECIDUOUS - Unfavorable season mainly characterized by winter frost.

DROUGHT DECIDUOUS - Unfavorable season mainly characterized by drought, in most cases winter-drought. Foliage is shed regularly every year. Most trees with relatively thick, fissured bark.

MIXED EVERGREEN - DECIDUOUS - Evergreen and deciduous species generally contribute 25-75% of the total woody cover.

MIXED EVERGREEN / COLD DECIDUOUS - Evergreen and cold-deciduous species admixed.

MIXED EVERGREEN / DROUGHT DECIDUOUS - Evergreen and drought-deciduous species admixed.

HERB - PERENNIAL - Herbaceous vegetation composed of more than 50% perennial species.

HERB - ANNUAL - Herbaceous vegetation composed of more than 50% annual species.

31. Leaf Type

Leaf Type can be edited in the Lifeforms section of the Plots and AA Observation forms. Using the pull-down list, select one value which best describes the leaf form of the dominant stratum.

Values:

BROADLEAF - Woody vegetation primarily broadleaved (generally contribute to greater than 50% of the total woody cover).

NEEDLELEAF - Woody vegetation primarily needleleaved (generally contribute to greater than 50% cover).

MICROPHYLLOUS - Woody cover primarily microphyllous.

GRAMINOID - Herbaceous vegetation composed of more than 50% graminoid / stipe leaf species.

BROADLEAF HERBACEOUS (FORB) - Herbaceous vegetation composed of more than 50% broadleaf forb species.

PTERIDOPHTYE - Herbaceous vegetation composed of more than 50% species with frond or frondlike leaves.

32. Location Code

Location Code is the unique record identifier for Location Records held in the Locations table. Each location (e.g. Park, Site, etc.) for which you are recording Plot or AA Observation data must have a record in the Locations table. In the case of units of the National Park System, the Location Code is the standard 4-character Park Code. Location Codes for other types of Locations should be selected according to standard convention, if one exists. For example, conservation design sites recorded in the Site Basic Record within the BCD System should probably use their Site codes as Location Codes.

The Location Code can be edited in the Locations form by clicking on the 'Supporting Data' button from the "Main Menu" window. It is also found as read-only data in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form.

33. Location Name

The name of the location (e.g. Park Name).

The Location Name can be edited in the Locations form by clicking on the 'Supporting Data' button from the "Main Menu" window. It is also found as read-only data in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form.

34. Organization

The abbreviation or name of the organization that owns or manages the location. These should be standardized among all Locations records, such that "NPS" is always used for the U.S. National Park Service, "TNC" for The Nature Conservancy, etc.

The Organization field can be edited in the Locations form by clicking on the 'Supporting Data' button from the "Main Menu" window. It is also found as read-only data in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form. There it is identified as 'Location Organization'.

35. Other Comments

Use this field for general comments, or any comments that don't seem to fit elsewhere.

Other Comments can be edited in the Misc Comments section of the Plots and AA Observation forms.

36. Other Measure1, Other Measure2, Other Measure1 Defined, Other Measure2 Defined

If measures other than percent cover were taken, use these fields to hold the results and define the measurements in the Other Measure1 Defined and Other Measure2 Defined fields.

These data fields can be edited by clicking on the 'View/Edit Species List' button in the Identifiers section of the Plots or AA Observation forms. To edit Other Measure1

and Other Measure 2, scroll right by clicking on the right arrow of the subwindow's lower right corner.

37. Permanent

Check-off indicating if the plot has been permanently marked. Click on the data square to produce an 'x'. Click again to remove the 'x'. Permanent can be accessed in the Identifiers 2 section of the Plots form.

38. Photos

Check-off indicating whether photos of the plot have been taken at the time of sampling. Click on the data square to produce an 'x'. Click again to remove the 'x'. Photos can be accessed in the Identifiers 2 section of the Plots form.

39. Physiognomic Class

Physognomic classes are determined by assessing the relative percent cover and height of the lifeform comprising the uppermost strata with cover greater than 10%. (Note: Percent canopy cover and height ranges are provided as guidelines, not strict cutoff points).

Physiognomic Class is edited in the Lifeforms section of the Plots and AA Observation forms. Using the pull-down list, select the value which best describes the physiognomy. Definitions are modified from the 1973 UNESCO and 1984 Driscoll et al. Formation Classes and are defined by the relative percent cover of the tree, shrub, dwarf shrub, herbaceous, and nonvascular strata.

FOREST - Trees (> 5m) with crowns interlocking (generally forming 60-100% cover).
WOODLAND - Trees (> 5m) with crowns not touching (25-60% cover).
SPARSE WOODLAND - Trees (>5m) with crowns widely spaced (10-25% cover).
SHRUBLAND - Shrubs/Trees (0.5-5m) with 25-100% cover.
SPARSE SHRUBLAND - Shrubs/Trees (0.5-5m) with 10-25% cover.
DWARF SHRUBLAND - Dwarf Shrubs/Shrubs/Trees (<0.5m) with 25-100% cover.
SPARSE DWARF SHRUBLAND - Dwarf Shrubs/Shrubs/Trees (<0.5m) with 10-25% cover.
HERBACEOUS - Herbaceous plants with 10-100% cover.
SPARSE VASCULAR/NON-VASCULAR - 1-10% Vascular Vegetation.

40. Plant Symbol

The Symbol field provides an quick and easy way to search for a species name in the PLANTS database. It is accessed by clicking on the 'View/Edit Species List' button of the Identifiers section of the Plots and AA Observation forms. The Symbol code is the identifier for records in PLANTS. It generally consists of the first two characters of the Genus name, plus the first two characters of the Species name.

Example: for Pinus ponderosa, the Symbol is PIPO.

Identical Symbol codes that are for different species names are appended with tie-breaker characters.

Example: Pinguicula primuliflora = PIPR, Piptochaetium pringlei = PIPR1

To use the Symbol code to search for a species name in PLANTS, type in the beginning characters of the code and press Enter (or move to the next field). You will be shown a list of the PLANTS records that have Symbol codes that start with the characters you entered. You can choose the name you are looking for from the list.

41. Plot Code

This field is the unique identifier for a Plot record. It is generated by the system, at the time a new record is entered into the database. The Plot Code is assembled from two parts: the Location Code and the Plot Code Counter, which is a sequential counter field that is increased automatically each time a Plot is entered for that Location.

Examples:

SHEN.1	The first Plot record entered for Shenandoah National Park
TUZI.8	The eighth Plot record entered for Tuzigoot National Monument

The sequential counter can be reset to any number you would like when the system creates the Plot Code for a new Plot record. As you select the Location for your new Plot record, the system will suggest a new Plot Code based on the current setting of the counter. You can accept this Plot Code, or you can change the counter at this point. Changing the counter setting will cause the counter to start numbering from the new setting. This may be desirable if you would like to coordinate data entry with another installation, and want to avoid using duplicate Plot Codes. See the How to Get Started section: Entering Data from field forms: Creating a new plot record for more detailed instructions. Once you finalize the Plot Code, you can not change it directly. If you need to change the Plot Code of your record, refer to the Troubleshooting/Helpful Hints section: Editing Problems.

The Plot Code is viewed as read-only data in the Identifiers 1 section of the Plots form.

42. Plot Directions

Precise directions to the site using a readily locatable landmark (e.g., a city, a major highway, etc.) as the starting point on a state or local road map. Use clear sentences that will be understandable to someone who is unfamiliar with the area and has only your directions to follow. Give distances as closely as possible to the 0.1 mile and use compass directions. Give additional directions to the plot within the site.

Plot Directions can be edited in the Identifiers 2 section of the Plots form.

43. Plot Representativeness

Does this plot well represent the average species composition and structure, and environmental setting of the polygon? If not, were additional plots taken to cover the range of variability within the polygon?

Plot Representativeness can be edited in the Identifiers 2 section of the Plots form.

44. Plot Shape

Plot Shape can be edited in the Identifiers 2 section of the Plots form.Using the pull-down list, select the plot shape which best describes that used for this sample

Values:

Rectangular
Square
Circular
Transect/strip
Other (type in your own term)

45. Polygon Code

Code indicating the vegetation polygon where the plot was taken. Fill this out only if working from previously delineated photos.

The Polygon Code can be edited in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form.

46. Polygon Heterogeneity Comments

Enter any observations regarding the heterogeneity (or lack thereof) of the community and environmental characteristics within the polygon.

Polygon Heterogeneity Comments can be edited in the Misc Comments section of the AA Observation form.

47. Polygon Size

Polygon Size can be edited in the Identifiers section of the AA Observation form. Using the pull-down list, enter the category that corresponds to the size of the polygon.

48. Provisional Community Name

Using the classification system, assign the name of the vegetation type which most closely resembles this type. Enter the finest level of the classification possible. This is meant to be a field call of the vegetation classification and may change when the data are analyzed. Colloquial names can be used in this field if necessary.

Provisional Community Name can be edited in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form.

49. Quad Code

Code of USGS 7.5 minute quadrangle map. Quad Code can be edited in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form.

50. Quad Name

Appropriate name/scale from survey map used; use 7.5 minute quadrangle if possible. Quad Name can be edited in the Identifiers section of the AA Observation form and the Identifiers 1 section of the Plots form.

51. Range Cover

Use this field only if you do not use the Real Cover field to specify a true percentage. Range Cover can be edited by clicking on the 'View/Edit Species List' button in the Identifiers section of the Plots or AA Observation forms, then scrolling right by clicking on the right arrow button in the lower right section of one of the subwindows. Using the pull-down list, select the value for estimated cover of this species within the stratum. The system will convert the value you select to a single midpoint percent figure for analysis, and automatically place that figure in the Real Cover field.

Values:

01 <1%

02 1-5%
03 2-25%
04 25-50%
05 50-75%
06 75-100%

52. Real Cover

Use this field only if you are not using the Range Cover field to specify a value from the cover scale. Enter the actual percent cover for the species within the stratum. Real Cover can be edited by clicking on the 'View/Edit Species List' button in the Identifiers section of the Plots or AA Observation forms, then scrolling right by clicking on the right arrow button in the lower right section of one of the subwindows.

53. Roll Number

If photos have been taken at the plot, enter the film roll number to help identify the photos after film processing.

Roll Number can be edited in the Identifiers 2 section of the Plots form.

54. Salinity/Halinity Modifiers

Salinity/Halinity Modifiers can be edited in the Environment 1 section of the AA Observation and Plot forms. Using the pull-down list, enter the salinity/halinity modifiers of the hydrologic regime.

Values:

Designation	Content
Coastal Tidal: Saltwater - tidal	> 30 ppt
Coastal Tidal: Brackish	0.5 - 30 ppt
Coastal Tidal: Freshwater	< 0.5 ppt
Inland: Saltwater	> 30 ppt
Inland: Brackish	0.5 - 30 ppt

55. Scientific Name

The scientific name for an individual species record within the NRCS PLANTS Database. As supplied by the NRCS, this field also contains authority information. This field is used as validation data when a species' name is entered into the Species Scientific Name field in either the Plots or the AA Observations table.

The Scientific Name can be edited by clicking the 'PLANTS Database Maintenance' button from the "Main Menu" window. Click on one of the 'Edit/View Data' buttons. Edit according to the instructions in the Functions section: Editing Data: Undo/Edit functions.

NOTE: if you change the contents of the PLANTS Database in any way you can not represent it to others as the NRCS PLANTS Database. Please read the PLANTS copyright notice (click the 'Important Copyright Information' button in the "Main Menu" window).

56. Slope

Measure slope degrees using a clinometer. Slope can be edited in the Environment 1 section of the AA Observation and Plots forms. Using the pull-down list, select an entry that corresponds to the degree measurement.

VALUES:

Degree	Percent
FLAT	0 0%
GENTLE	0-5Â° 1-9%
MODERATE	6-14Â° 10-25%
SOMEWHAT STEEP	15-26Â° 26-49%
STEEP	27-45Â° 50-100%
VERY STEEP	45-69Â° 101-275%
ABRUPT	70E-100Â° 276-300%
OVERHANGING/SHELTERED	>100Â° >300%

57. Soil Depth

Enter the depth of the soil. Using the associated check-offs indicate the units of measurement. Click on the data square to produce an 'x'. In the Environmental Comments field indicate whether this was measured or estimated.

Soil Depth can be edited in the Environment 2 section of the Plots form.

58. Soil Drainage

Soil Drainage can be edited in the Environment 2 section of the Plots form. Using the pull-down list, enter the appropriate term describing soil drainage characteristics, per the following discussion:

The soil drainage classes are defined in terms of (1) actual moisture content (in excess of field moisture capacity), and (2) the extent of the period during which excess water is present in the plantroot zone.

It is recognized that permeability, level of groundwater, and seepage are factors affecting moisture status. However, because these are not easily observed or measured in the field, they cannot be used generally as criteria of moisture status. It is further recognized that soil profile morphology, for example mottling, normally, but not always, reflects soil moisture status. Although soil morphology may be a valuable field indication of moisture status, it should not be the overriding criterion. Soil drainage classes cannot be based solely on the presence or absence of mottling. Topographic position and vegetation as well as soil morphology are useful field criteria for assessing soil moisture status.

RAPIDLY DRAINED - The soil moisture content seldom exceeds field capacity in any horizon except immediately after water addition. Soils are free from any evidence of gleying throughout the profile. Rapidly drained soils are commonly coarse textured or soils on steep slopes.

WELL DRAINED - The soil moisture content does not normally exceed field capacity in any horizon (except possibly the C) for a significant part of the year. Soils are usually free from mottling in the upper 3 feet, but may be mottled below thisdepth. B horizons, if present, are reddish, brownish, or yellowish.

MODERATELY WELL DRAINED - The soil moisture in excess of field capacity remains for a

small but significant period of the year. Soils are commonly mottled (chroma < 2) in the lower B and C horizons or below a depth of 2 feet. The Ae horizon, if present, may be faintly mottled in finetextured soils and in mediumtextured soils that have a slowly permeable layer below the solum. In grassland soils the B and C horizons may be only faintly mottled and the A horizon may be relatively thick and dark.

SOMEWHAT POORLY DRAINED - The soil moisture in excess of field capacity remains in subsurface horizons for moderately long periods during the year. Soils are commonly mottled in the B and C horizons; the Ae horizon, if present, may be mottled. The matrix generally has a lower chroma than in the welldrained soil on similar parent material.

POORLY DRAINED - The soil moisture in excess of field capacity remains in all horizons for a large part of the year. The soils are usually very strongly gleyed. Except in highchroma parent materials the B, if present, and upper C horizons usually have matrix colors of low chroma. Faint mottling may occur throughout.

VERY POORLY DRAINED - Free water remains at or within 12 inches of the surface most of the year. The soils are usually very strongly gleyed. Subsurface horizons usually are of low chroma and yellowish to bluish hues. Mottling may be present but at depth in the profile. Very poorly drained soils usually have a mucky or peaty surface horizon. Simplified Key to Soil Texture (Brewer and McCann, 1982).

59. Soil Taxon/Description

Soil Taxon/Description can be edited in the Environment 2 section of the Plots form.

Provide the soil name and the name of the soil report/map from which the information was obtained. Also provide a basic description of the soils noting the most significant features with respect to classifying the vegetation. A soil core should be taken. Describe the soil horizons and note the depth, texture, and color of each. Note significant changes such as depth to mottling, depth to water table, root penetration depth, depth of the organic layer. Also include general description soil depth class (shallow, deep, very deep, etc.) pH, stoniness, erosion potential and type, etc. If it is not possible to take a soil core, as much information as possible should be recorded from the soil report and it should be noted that no core was taken.

60. Soil Texture

Soil Texture can be edited in the Environment 2 section of the Plots form. Using the pull-down list, enter the appropriate term describing the soil texture. Use the following key to derive the term:

Simplified Key to Soil Texture (Brewer and McCann, 1982)

A1 Soil does not remain in a ball when squeezed. . . . . sand

A2 Soil remains in a ball when squeezed. . . . . B

B1 Squeeze the ball between your thumb and forefinger, attempting to make a ribbon that you push up over your finger. Soil makes no ribbon. . . . . loamy sand

B2 Soil makes a ribbon; may be very short. C

C1 Ribbon extends less than 1 inch before breaking . . . . . D

C2 Ribbon extends 1 inch or more before breaking . . . . . E

D1 Add excess water to small amount of soil;
soil feels at least slightly gritty . . . . . loam or sandy loam

D2 Soil feels smooth . . . . . silt loam

E1 Soil makes a ribbon that breaks when 12 inches long;
cracks if bent into a ring . . . . . F

E2 Soil makes a ribbon 2+ inches long;
doesn't crack when bent into a ring . . . . . G

F1 Add excess water to small amount of soil;
soil feels at least slightly gritty. . . . . .sandy clay loam or clay loam

F2 Soil feels smooth . . . . . silty clay loam or silt

G1 Add excess water to a small amount of soil;
soil feels at least slightly gritty . . . . . sandy clay or clay

G2 Soil feels smooth. . . . . silty clay

61. Source

This field indicates the source of the name record in the PLANTS Database.

Values:

SS Standard Source (e.g. the NRCS PLANTS list)
NS Non-standard Source (any source other than NRCS)
SY Accepted synonym by NRCS list

The Source can be edited by clicking the 'PLANTS Database Maintenance' button from the "Main Menu" window. Click on one of the â€˜Edit/View Dataâ€ buttons. Edit according to the instructions in the Functions section: Editing Data: Undo/Edit functions.

NOTE: if you change the contents of the PLANTS Database in any way you can not represent it to others as the NRCS PLANTS Database. Please read the PLANTS copyright notice (click the 'Important Copyright Information' button in the "Main Menu" window).

62. Species Scientific Name

The scientific name for an individual species found in a Plot or Accuracy Assessment observation.

To edit the Species Scientific Name, click on the 'View/Edit Species List' button in the Identifiers 1 section of the Plots form or the Identifiers section of the AA Observation form.

Please see the How to Get Started section: Entering Data from field forms: Entering Species Data for a Plot.

63. Specimen #

Enter the Specimen # if a specimen of the species was collected. Enter the number catalogued on the specimen. If your program doesn't already have guidelines in place for cataloguing specimens, use the plot code + a counter to create the specimen number. (Example: SHEN.1.1).

To edit the Specimen #, click on the 'View/Edit Species List' button in the Identifiers 1 section of the Plots form or the Identifiers section of the AA Observation form.

64. Standard Source Name

The Standard Source Name is the Scientific Name accepted by NRCS as the standard name to be used in classification.

The "Specify Plant Species" window is divided into two columns. The first column gives the Scientific Name, while the second gives the Common Name OR the Standard Source Name if the Scientific Name is a synonym recognized by NRCS. The Standard Source Name is preceded by an "=" sign. If you would like to avoid entering the Synonym, then return to step 2) and search for the Standard Source Name.

65. Stratum

Visually divide the community into vegetation layers (strata).

To edit the Stratum, click on the 'View/Edit Species List' button in the Identifiers 1 section of the Plots form or the Identifiers section of the AA Observation form. Using the pull-down list, select the identifier abbreviation for the stratum in which this species occurs.

Lifeforms:

EMERGENT TREE		T1	
TREE CANOPY		T2	
TREE SUBCANOPY		T3	
TALL SHRUB (25m)		S1	
SHORT SHRUB (<2m)			S2
DWARF-SHRUB			S3
HERBACEOUS		H	
NONVASCULAR		N	
EPIPHYTE	E		
VINE/LIANA		V	

66. Stratum Height Class

Visually divide the community into vegetation layers (strata). Stratum Height Class is the height scale that represents the average height of the stratum.

To edit the Stratum Height Class, enter the Lifeforms section of the Plots or AA Observation forms. Using the pull-down list, select the class that indicates the average height of the stratum (the height scale is also shown below).

TREES are defined as single-stemmed woody plants, generally greater than 5m in height or greater at maturity and under optimal growing conditions. SHRUBS are defined as multiple-stemmed woody plants generally less than 5m in height at maturity and under optimal growing conditions.

Height Scale for Strata

01	<0.5 m
02	0.5-1m
03	1-2 m
04	2-5 m
05	5-10 m
06	10-15 m
07	15-20 m
08	20-35 m
09	35 - 50 m
10	>50 m

Lifeforms -

EMERGENT TREE		T1	
TREE CANOPY		T2	
TREE SUBCANOPY		T3	
TALL SHRUB (25m)		S1	
SHORT SHRUB (<2m)			S2
DWARF-SHRUB			S3
HERBACEOUS		H	
NONVASCULAR		N	
EPIPHYTE	E		
VINE/LIANA		V	

67. Stratum Percent Cover

Visually divide the community into vegetation layers (strata). Stratum Percent Cover is the class value that represents the average percent cover of the whole stratum.

To edit the Stratum Height Class, enter the Lifeforms section of the Plots or AA Observation forms. Using the pull-down list, select the class value indicating the average percent cover of the whole stratum.

TREES are defined as single-stemmed woody plants, generally greater than 5m in height or greater at maturity and under optimal growing conditions. SHRUBS are defined as multiple-stemmed woody plants generally less than 5m in height at maturity and under optimal growing conditions.

Lifeforms -

EMERGENT TREE		T1	
TREE CANOPY		T2	
TREE SUBCANOPY		T3	
TALL SHRUB (25m)		S1	
SHORT SHRUB (<2m)			S2
DWARF-SHRUB			S3
HERBACEOUS		H	
NONVASCULAR		N	
EPIPHYTE	E		
VINE/LIANA		V	

68. Sublocation

Provisional name assigned by field worker that describes where the data were collected; should represent an identifiable feature on topographic map.

Sublocation can be edited in the Identifiers 1 section of the Plots form and the Identifiers section of the AA Observation form.

69. SubPlot

Click on the data square to produce an 'x' if the plot is a subplot of another larger plot. Leave blank if the plot is not a subplot of another plot.

SubPlot can be edited in the Identifiers 1 section of the Plots form.

70. SubPlot Parent Code

Enter the Plot Code for the plot for which this record is a subplot. Use the pull-down list to find the correct Plot Code.

SubPlot Parent Code can be edited in the Identifiers 1 section of the Plots form.

71. Surficial Geology

Surficial Geology can be edited in the Environment 1 section of the Plots and AA Observation forms. Using the pull-down list, select a term that describes the geologic substrate influencing the plant community (bedrock or surficial materials). The list provided with the Plots Database software is to serve as an example of the kinds of terms you could use. You can customize this list by clicking on the button 'Edit Geology List', which will take you to the Surficial Geology Classes form.

72. Survey Date

Date the survey was taken; month, day, year*. *Year is entered as 4 characters, so as to avoid the "Year 2000" computer problem. After it has been entered, 20th century years appear as two characters, 21st century years appear with all four characters.

Survey Date can be edited in the Identifiers 1 section of the Plots form and the Identifiers section of the AA Observation form.

73. Surveyors

Names (and addresses, if appropriate) of surveyors, principle surveyor listed first.

Surveyors can be edited in the Identifiers 1 section of the Plots form and the Identifiers section of the AA Observation form.

74. Synonym

The Synonym is the Scientific Name accepted by NRCS as a synonym.

The "Specify Plant Species" window is divided into two columns. The first column gives the Scientific Name, while the second gives the Common Name OR the Standard Source Name if the Scientific Name is a synonym recognized by NRCS. The Standard Source Name is preceded by an "=" sign. If you would like to avoid entering the Synonym, then return to step 2) and search for the Standard Source Name.

75. TNC Elcode

Enter the Elcode (Element Code) for the community element corresponding to the Classified Community Name.

TNC Elcode can be edited in the Identifiers 1 section of the Plots form and the Identifiers section of the AA Observation form.

76. TNC EONum-Suffix

Enter the EO Number, State/Province, and Nation portion of the EOCODE (i.e., that portion of the EOCODE that follows the ELCODE) that identifies the Element Occurrence Record (EOR) for this plot.

TNC EONum-Suffix can be edited in the Identifiers 1 section of the Plots form and the Identifiers section of the AA Observation form.

77. Topo Position

Topographic position of the plot. Use the pull-down list to select an appropriate value.

Topo Position can be edited in the Environment 1 section of the Plots and AA Observation forms.

Values:

INTERFLUVE: (crest, summit, ridge): linear top of ridge, hill, or mountain; the elevated area between two fluves (drainageways) that sheds water to the drainageways.

HIGH SLOPE: (shoulder slope, upper slope, convex creep slope): geomorphic component that forms the uppermost inclined surface at the top of a slope. Comprises the transition zone from backslope to summit. Surface is dominantly convex in profile and erosional in origin.

HIGH LEVEL (mesa): level top of plateau.

MIDSLOPE (transportational midslope, middle slope): intermediate slope position

BACKSLOPE (dipslope): subset of midslopes which are steep, linear, and may include cliff segments (fall faces).

STEP IN SLOPE (ledge, terracette): nearly level shelf interrupting a steep slope, rock wall, or cliff face.

LOWSLOPE (lower slope, foot slope, colluvial footslope): inner gently inclined surface at the base of a slope. Surface profile is generally concave and a transition between midslope or backslope, and toe slope.

TOESLOPE (alluvial toeslope): outermost gently inclined surface at base of a slope. In profile, commonly gentle and linear and characterized by alluvial deposition.

LOW LEVEL (terrace): valley floor or shoreline representing the former position of an alluvial plain, lake, or shore.

CHANNEL WALL (bank): sloping side of a channel.

CHANNEL BED (narrow valley bottom, gully arroyo): bed of single or braided watercourse commonly barren of vegetation and formed of modern alluvium.

BASIN FLOOR (depression): nearly level to gently sloping, bottom surface of a basin.

78. Unvegetated Surface categories

In each category field (e.g. % Bedrock, % Large Rocks, etc.), enter the percentage of surface covered by each category. Include only the categories/fields covering over 5 percent.

Use the "% Other" field to note any additional category that may be significant, and indicate the name of that category in the "Description" field.

Unvegetated Surface can be edited in the Environment 2 section of the Plots and AA Observation forms.

Definitions:

BEDROCK: sheets of bedrock exposed at the surface.

LARGE ROCKS: includes boulders and cobbles greater than 10 cm diameter.

SMALL ROCKS: includes gravel, 0.2-10 cm diameter.

SAND: small particles 0.1 - 2 mm diameter.

BARE SOIL (mineral / organic): includes small particles less than 0.1 mm diameter.

LITTER, DUFF: litter includes freshly-fallen leaves, needles, twigs, bark, fruits, and wood fragments less than 1 cm. Duff is fermentation layer and humus layer (organic horizon).

WOOD: downed fragments greater than 1 cm.

79. Used PLANTS

This field will be automatically checked if the name appearing in the Species Scientific Name field is found in the PLANTS database. Note that the automatic check-off will only take place if there is an exact match between the Species Scientific Name and the name as listed in PLANTS (which typically lists the authority).

Used PLANTS can not be edited.

80. X Dimension

Enter the length in meters* of one side of each of the plots in which samples were taken. If the plot is circular, enter the length of its radius. If transects were used, enter their length here. The value of X Dimension should correspond to the plot specified in the Plot Shape field. *NOTE: Dimensions MUST be converted to meters.

X Dimension can be edited in the Identifiers 2 section of the Plots form.

81. Y Dimension

Enter the length in meters* of the side of the plot adjacent to the side entered in the X

Dimension field. The value entered in the Y Dimension field should correspond to the plot referred to in the Plot Shape and X Dimension fields. Leave this field blank if the plot is circular. Enter a one if a transect was used. *NOTE: Dimensions MUST be converted to meters.

Y Dimension can be edited in the Identifiers 2 section of the Plots form.

82. Zone

Zone of the Universal Transverse Mercator projection. To be filled in at the office, not in the field.

Zone can be edited in the Environment 1 section of the Plots and Accuracy Assessment forms.

Entity_and_Attribute_Detail_Citation:
See:
http://biology.usgs.gov/npsveg/ftp/vegmapping/tncplots/USER7.DOC,
http://biology.usgs.gov/npsveg/thro/report.pdf#appendixe
and
http://biology.usgs.gov/npsveg/thro/report.pdf#appendixf

Distribution_Information:
Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Person: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Organization: U.S. Geological Survey, Center for Biological Informatics
Contact_Address:
Address_Type: mailing and physical address
Address:
U.S. Geological Survey, Center for Biological
Informatics, MS 302, Room 8000, Building 810,
Denver Federal Center
City: Denver
State_or_Province: Colorado
Postal_Code: 80225
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: 303-202-4229
Contact_Facsimile_Telephone: 303-202-4219 (org)
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Resource_Description:
Vegetation Field Plot Data (Physical Descriptions)
and Spatial Database for the Voyageurs National
Park Vegetation Mapping Program
Distribution_Liability:
Although these data have been processed
successfully on a computer system at the U.S.
Geological Survey, no warranty expressed or
implied is made regarding the accuracy or utility
of the data on any other system or for general or
scientific purposes, nor shall the act of
distribution constitute any such warranty. This
disclaimer applies both to individual use of the
data and aggregate use with other data. It is
strongly recommended that these data are directly
acquired from a U.S. Geological Survey server, and
not indirectly through other sources which may
have changed the data in some way. It is also

strongly recommended that careful attention be paid to the contents of the metadata file associated with these data. The U.S. Geological Survey shall not be held liable for improper or incorrect use of the data described and/or contained herein.
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name: HTML
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name: http://biology.usgs.gov/npsveg/thro/fielddata.html
Fees: None

Metadata_Reference_Information:
Metadata_Date: 200001
Metadata_Review_Date: 20050517
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Address:
Address_Type: mailing and physical address
Address:
U.S. Geological Survey, Center for Biological Informatics, MS 302,
Room 8000, Building 810, Denver Federal Center
City: Denver
State_or_Province: Colorado
Postal_Code: 80225
Country: USA
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: (303) 202-4219
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Metadata_Standard_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1: Biological Data Profile, 1999
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Extensions:
Online_Linkage: http://biology.usgs.gov/fgdc.bio/bionwext.txt
Profile_Name: Biological Data Profile FGDC-STD-001.1-1999